AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Currently amended) A method for improving the quality of X-ray images generated by an X-ray imaging system, said X-ray system including an X-ray emitter and an X-ray detector, said method including the steps of:

positioning the patient between said X-ray emitter and said X-ray detector;

imaging the patient with a low-dose pre-shot to determine a low-dose image, wherein the radiation dose level of said low-dose pre-shot is less than the radiation dose level of a full-dose exposure,

wherein said imaging includes imaging the patient with a low-dose X-ray imaging sequence;

analyzing the low dose image to determine the positioning of the patient relative to said X-ray emitter and said X-ray detector;

adjusting the positioning of the patient relative to at least one of said X-ray emitter and said X-ray detector; and

imaging the patient with a full-dose exposure.

2. (Original) The method of claim 1 wherein said adjusting step includes adjusting the positioning of the patient and then re-imaging said patient with a second low-dose pre-shot prior to imaging the patient with a full-dose exposure.

3. (Original) The method of claim 1 wherein said low-dose pre-shot has a dose of less than 10 percent of said full-dose exposure.

4. (Original) The method of claim 1 wherein said low-dose pre-shot has a dose of less than 4 percent of said full-dose exposure.

5. (Original) The method of claim 1 wherein said X-ray system includes X-ray imaging parameters and said X-ray imaging parameters vary between said low-dose pre-shot and said full-dose exposure.

6. (Original) The method of claim 1 wherein said X-ray imaging parameters are varied according to one of patient size and anatomical view.

7. (Original) The method of claim 1 wherein the X-ray system is controlled by a technician from a remote acquisition console.

8. (Original) The method of claim 1 wherein the X-ray system is controlled automatically.

9. (Original) The method of claim 1 wherein said low-dose pre-shot generates an image within 5 seconds.

10. (Original) The method of claim 1 wherein said low dose pre-shot generates an image within one second.

11. (Canceled)

12. (Currently amended) The method of claim **[[11]]1** wherein said low-dose imaging sequence occurs at a frame rate of approximately 5 frames per second.

13. (Currently amended) The method of claim **[[11]]1** wherein said low-dose imaging sequence occurs at a frame rate of approximately 1 frame every 5 seconds.

14. (Currently amended) The method of claim **[[7]]1** wherein the X-ray images in the X-ray imaging sequence are sub-sampled prior to processing.

15. (Original) The method of claim 14 wherein the X-ray images of the X-ray imaging sequence are sub-sampled using binning.

16. (Original) The method of claim 14 wherein the X-ray images of the X-ray imaging sequence are sub-sampled using sparsing.

17. (Currently amended) The method of claim 1 wherein said analyzing step further includes automatically analyzing said low-dose image using a computer algorithm,

wherein said computer algorithm employs image segmentation to determine the positioning of the patient.

18. (Currently amended) A method for verifying the positioning of a patient in an X-ray imaging system before imaging the patient with a full-dose X-ray exposure including the steps of:

positioning the patient in the X-ray system;

imaging the patient with a low-dose pre-shot, wherein the radiation dose level of said low-dose pre-shot is less than the radiation dose level of a full-dose exposure,

wherein said imaging includes imaging the patient with a low-dose X-ray imaging sequence; and

verifying the positioning of the patient in the X-ray system via the low-dose pre-shot image before imaging the patient with a full-dose X-ray exposure.

19. (Original) The method of claim 18 wherein said verifying step includes adjusting the positioning of the patient and then re-imaging said patient with a second low-dose pre-shot prior to imaging the patient with a full-dose exposure.

20. (Original) The method of claim 18 wherein said low dose pre-shot uses a dose of 1 to 4 percent of the dose of the full-dose exposure.

21. (Original) The method of claim 18 wherein the X-ray system is controlled by a technician from a remote acquisition console.

22. (Original) The method of claim 18 wherein said low-dose pre-shot generates an image within 5 seconds.

23. (Original) The method of claim 18 wherein said low dose pre-shot generates an image within one second.

24. (Canceled)

25. (Currently amended) The method of claim **[[24]]18** wherein said low-dose imaging sequence occurs at a frame rate of approximately 5 frames per second.

26. (Currently amended) The method of claim **[[24]]18** wherein said low-dose imaging sequence occurs at a frame rate of approximately 1 frame every 5 seconds.

27. (Currently amended) The method of claim **[[24]]18** wherein the X-ray images in the X-ray imaging sequence are sub-sampled prior to processing.

28. (Original) The method of claim 27 wherein the X-ray images of the X-ray imaging sequence are sub-sampled by binning.

29. (Original) The method of claim 27 wherein the X-ray images of the X-ray imaging sequence are sub-sampled by sparsing.

30. (Currently amended) The method of claim 18 wherein said verifying step includes automatically verifying said low-dose image using a computer algorithm**,**

wherein said computer algorithm employs image segmentation to determine the positioning of the patient.

31. (Currently amended) A method for improving the quality of X-ray images generated by an X-ray imaging system, said method including the steps of:

positioning a patient in the X-ray system;

imaging the patient with a low-dose pre-shot, wherein the radiation dose level of said low-dose pre-shot is less than the radiation dose level of a full-dose exposure; and

processing the low-dose pre-shot image to provide imaging parameters to be employed during a subsequent X-ray exposure,

wherein said imaging parameters include at least one of zero point parameters, saturation management parameters, field of view optimization parameters and spatial physical filter parameters.

32-35. (Canceled)